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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/728,906

12/08/2003

Shinichi Eguchi

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EXAMINER

BRUCE, DAVID VERNON

ART UNIT

PAPER NUMBER

2624

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/728,906	<b>Applicant(s)</b> EGUCHI ET AL.	
	<b>Examiner</b> DAVID V. BRUCE	<b>Art Unit</b> 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>See Continuation Sheet</u> .                                  | 6) <input type="checkbox"/> Other: ____.                          |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :12/08/2003, 06/17/2004, 02/23/2005, 06/08/2005, 11/30/2005, 11/16/2007

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to because figures 1, 4b, 14, and 15 have extraneous text and figures 2, 20, and 26 have irregular shading. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2624

2. Claims 1, 2, 3, 16, 17, 18, 29, 30, 31, 40, 41, 42, 46, and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by Sorimachi US 5,331,442 A. Sorimachi shows all of the features of the instant invention including copying machine with image processing or computer program where a boundary is detected by extracting image frequency (feature) information for each unit area and comparing a difference or variance between the extracted information and representative information to a predetermined level and comparing to a smaller unit area (Figure 2, column 1 lines 18-62, column 2 lines 12-20, and 51-68, column 4 lines 27-55, column 6 lines 10-49 -- macro correction happens at smaller unit area).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 4, 10, 19, 25, 32, 35, 36 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sorimachi US 5,331,442 A in view of Ohta US 5,173,788 A and Yang US

Art Unit: 2624

5,889,559 A. Sorimachi shows all of the features of the instant invention including copying machine with image processing or computer program where a boundary is detected by extracting image frequency information for each unit area and comparing a difference or variance between the extracted information and representative information to a predetermined level and comparing to a smaller unit area, except for the use of Fourier transforms and wavelet transforms for determining frequency information, including frequency distribution which includes low-frequency, high-frequency, and zero-frequency information. Fourier transforms and wavelet transforms are known methods for yielding the predictable result of image frequency information as shown in Ohta (column 2 lines 44-68) and Yang (column 1 lines 47-60) respectively.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use Fourier transforms and wavelet transforms as the method of extracting image frequency information.

6. Claims 6-8, 21-23, 34, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sorimachi US 5,331,442 A as applied to claims 1-3, 16-18, 29 and 40 above, and further in view of Noguchi US 5,764,380 A. Sorimachi shows all of the features of the instant invention except for using grayscale level in four directions to determine a printing area and a target area excluding a background. Noguchi shows using grayscale level in four directions to determine a printing area and a target area excluding a background (figure 11, column 1 lines 8-41, column 2 lines 23-36, column 9 line 61 through column 10 line 19, column 11 lines 43-49, and column 13 lines 39-45). It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the original detection method Noguchi in the copier of Sorimachi to

allow for better automatic paper selection and automatic magnification selection, motivated by the desire to have an easier to use copier.

7. Claims 5, 9, 12, 14, 20, 24, 27, 33, 38, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sorimachi US 5,331,422 A, Ohta US 5,173,788 A and Yang US 5,889,559 A as applied to claims 4, 19, 32, and 43 above, and further in view of Noguchi US 5,764,380 A. Sorimachi in view of Ohta and Yang shows all of the features of the instant invention except for using image information in four directions to determine a printing area and a target area excluding a background and masking the background (claim 14). Noguchi shows using image information in four directions to determine a printing area and a target area excluding a background (figure 11, column 1 lines 8-41, column 2 lines 23-36, column 9 line 61 through column 10 line 19, column 11 lines 43-49, and column 13 lines 39-45). It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the original detection method Noguchi in the copier of Sorimachi to allow for better automatic paper selection and automatic magnification selection, motivated by the desire to have an easier to use copier. Masking is known technique for more quickly and accurately performing image analysis. One of ordinary skill in the art would have known to use masking to improve the known image analysis system.

8. Claims 11, 13, 26, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sorimachi US 5,331,422 A, Ohta US 5,173,788 A, Yang US 5,889,559 A, and Noguchi US 5,764,380 A as applied to claims 5, 20, and 33 above, and further in view of Nakashima US 5,982,952 A. Sorimachi, Ohta, and Noguchi show all of the features of the instant invention except for cant correction of the rectangle within the boundary and masking (claim 15).

Nakashima shows cant correction in a scanning and OCR system (abstract, figure 1, column 1 lines 13-30 and column 2 lines 25-43). It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the cant correction of Nakashima in the system of Sorimachi, Ohta, Yang, and Noguchi motivated by the desire to provide more accurate automatic magnification selection. Masking is known technique for more quickly and accurately performing image analysis. One of ordinary skill in the art would have known to use masking to improve the known image analysis system.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID V. BRUCE whose telephone number is (571)272-2487. The examiner can normally be reached on Monday through Thursday and alternate Fridays..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Application/Control Number: 10/728,906  
Art Unit: 2624

Page 7

/David V Bruce/  
Primary Examiner, Art Unit 2624

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